REMARKS

The Applicants have amended the claims so that they refer to a "coiled, hot-rolled steel strip." What this means is that the hot-rolled steel strips have been subjected to a coil annealing step and are hence "coiled." The coiling step may be found in paragraph [0020] in the Applicants' Specification and in any number of other locations. Entry into the official file and consideration on the merits is respectfully requested.

Claims 1 and 17 have also been amended to remove "about" in one location so that the ratio and percent of the amount of precipitated Nb to the total amount of the Nb is from 5% to about 80%. Entry into the official file and consideration on the merits is respectfully requested.

Claims 1, 3, 5, 7, 17, 19, 21 and 23 stand rejected under 35 U.S.C. §103 over Hayashi. The Applicants note with appreciation the Examiner's helpful comments hypothetically applying Hayashi to those rejected claims. The Applicants respectfully submit that Hayashi is inapplicable to those claims for the reasons set forth in detail below.

As noted above, the Applicants claim a coiled, hot-rolled steel strip. Such a steel strip is formed, for example, by heating a steel slab at a selected temperature, performing rolling of the heated steel slab to form a steel strip, completing the rolling under prescribed conditions, cooling the rolled steel strip immediately after completion of the rolling, and coiling the strip at a selected temperature.

In particular, the finish rolling temperature of the newly formed hot-rolled sheet should be set to about Ar_3 minus 50°C or more. Then, the hot-rolled steel strip is immediately cooled. Then, the cooled hot-rolled steel strip is subjected to coiling at a temperature of about 700° or less. That temperature range should be from about 700° to about 250°.

The Applicants have discovered that the coiling temperature should be between 250° and 700°C as noted above. Those skilled in the art are also fully aware that coiling is a heat treatment that is comparatively lengthy in duration and is not simply conducted over the course of several minutes or several tens of minutes. Coiling treatments typically last for many hours. The Applicants enclose an excerpt from The Making, Shaping and Treating of Steel on pages 1271-1272 that show heating times in a coiling furnace of 24 to 44 hours. Although this range is representative, it is not limiting. The point, however, is that coiling treatments are well known and can have a dramatic effect on the final physical structure of the resulting steel.

The cooling and subsequent coiling steps are described in the Applicants' Specification in paragraphs [0058] – [0061]. In the context of the examples, the Applicants observed, as set forth in paragraph [0069], that a coiling temperature of more than 700°C resulted in the Nb precipitation ratio being too high, i.e., greater than about 80%.

Paragraph [0070] reveals that when the coiling temperature was too low, namely 250°C, the Nb precipitation ratio was too low. Thus, the Applicants have demonstrated that the coiling treatment in general and the claimed temperature range, especially with respect to the upper end, is important.

The Applicants respectfully submit that Hayashi fails to disclose, teach or suggest a cooling step followed by the coiling step. The Applicants make this observation not as a distinguishing feature *per se* inasmuch as the subject matter claimed is a steel strip and not a method of forming a steel strip, but instead, to point out that the Applicants' methodology is completely different from the methodology of Hayashi. This goes to the inherency issue raised in the rejection.

The rejection specifically recites that:

> Hayashi and Toru teach substantially similar compositions and substantially similar processing and therefore the resulting properties are presumed inherent. See MPEP 2112.01. The burden then shifts to Applicant to show that the properties are not necessarily present.

The Applicants respectfully submit that the Applicants' method or "processing" is in no way "substantially similar" to the methodology of Hayashi . Hayashi, such as on page 15 of the English translation, discusses cooling subsequent to hot rolling. However, after the discussion of cooling, Hayashi moves directly to the examples. In other words, there is no disclosure whatsoever concerning coiling. As noted above, this is important. The fact that the Applicants coil the cooled, hot-rolled steel strip is what causes the ratio of Nb to be within the claimed 5% to about 80%. In sharp contrast, there is no evidence on the record at all that the Hayashi cooled steel strips have the claimed Nb ratio. That would be nothing more than unsupported speculation.

The Applicants have previously referred the Examiner to the Applicants' examples in their Specification and Steel No. 8 in Table 4 which has a ratio of precipitated Nb of 4%. It should be first be noted that there is no overlap between the claimed range of 5% to about 80%. Instead, there is a gap between 5% and 4%. Thus, the Applicants respectfully submit that the Nb ratio of 4% is not "arguably within" the claimed range as set forth in the rejection.

The rejection also takes the position that:

> The evidence presented in Table 4 as a whole shows when cooling finishing temperature is higher than Nb ratio is higher. The evidence as a whole agrees with rather than contradicts the Examiner's position.

The Applicants respectfully submit that the Specification in general in Table 4 in particular show something quite different. What the rejection does not consider is the fact that temperature is not only important, but the length of time of exposure to the temperature is also highly important. As

noted above, the coiling treatment occurs over a lengthy period of time as evidenced by the enclosed article. Thus, the Applicants have discovered that it is a combination of temperature and time in a coiling treatment that is what results in the Nb precipitation ratio as claimed. The Applicants demonstrated that Steel No. 8 is the closest of the examples to Hayashi. That is because the coiling temperature was set at a very low 250° which is just outside of the acceptable coiling temperature. However, it is not the same because of time. It was never intended to be a substitute for the fact that Nb precipitation occurs over time and is not solely a function of temperature.

In any event, the Applicants' methodology is sharply contrasted to Hayashi which has no coiling treatment at all. This can be seen on page 15 of the English translation wherein the cooling occurs at a rate of 0.1 to 20°C/s. Assuming a case where the steel plate was cooled from 400° to the Applicants' lowest coiling temperature of 250°, this would occur over 25 minutes. This is merely several tens of minutes that in no way rises to a coiling treatment. Instead, as noted above, coiling treatments last for hours, not minutes or tens of minutes.

This means that the Applicants have demonstrated that there is a substantial difference between the Applicants' methodology and the methodology of Hayashi. As a consequence, the Applicants respectfully submit that it would be improper to assume that the resulting properties are inherent. In fact, the Applicants respectfully submit that one skilled in the art would consider the resulting properties to be inherently different. In that regard, it is not good enough that the resulting properties might be the same as those claimed, could be the same as those claimed or might even likely be the same as those claimed. The test of inherency is that the properties at issue are "necessarily" present. The Applicants have established very substantial differences in methodology over Hayashi and, accordingly, have established that one skilled in the art would presume that the resulting properties would inherently be different, not "necessarily" the same as is required by the

MPEP. Withdrawal of the rejection based on Hayashi is respectfully requested.

Claims 1, 3, 5, 7, 17, 19, 21 and 23 stand rejected under 35 U.S.C. §103 over Toru. The Applicants respectfully submit that Toru also fails to disclose, teach or suggest the subject matter of the rejected claims.

Toru is similar to Hayashi in many respects. However, Toru is actually farther a field inasmuch as the cooling rate is 20°C/s or more. In other words, Toru subjects the sheet to a more severe degree of cooling than does Hayashi. This is set forth in paragraph [0032] of Toru.

However, like Hayashi, the discussion moves from the cooling step directly to the examples. In other words, there is no disclosure, no teachings and no suggestions concerning a coiling treatment. As a consequence, the steel sheets of Toru can reasonably be expected by one skilled in the art to have resulting properties that are inherently different from those of the solicited claims. As a consequence, the Applicants' claimed properties are "not necessarily" present in the Toru steel sheets. Therefore, Toru is inapplicable to the rejected claims. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

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